

### Office Action Summary

**Application No.**

10/584,003

**Applicant(s)**

NIFANT'EV ET AL.

**Examiner**

RIP A. LEE

**Art Unit**

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 24-30, 32-35, 37, 39, and 41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 28-30 is/are rejected.
- 7) ☒ Claim(s) 24-27, 32-35, 37, 39, and 41 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: 11-17-2008
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This office action follows a response filed on July 30, 2008. Claims 28, 32, 33, and 35 were amended, and claims 17-23, 31, 36, 38, 40, and 42 were canceled. Claims 24-30, 32-35, 37, 39, and 41 are pending.

#### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 28-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claim 28 is drawn to a process for preparing metallocene of formula (IV) from a compound of formula (IVa). The claim is indefinite because the structure of metallocene of formula (IV) is not shown in the claim.

The examiner has turned to the specification for guidance, and according to the disclosure, the benzannulated ring of the metallocene of formula (IV) bears substituent  $R^7$  which is hydrogen or a  $C_{1-C_{40}}$  hydrocarbon group. In the compound of formula (IVa) in claim 28, the substituent corresponding to  $R^7$  is hydrogen. There is a discrepancy between claimed structures (IVa) and (IV) because compound (IVa) can not be used to make metallocene (IV) in which  $R^7$  is a non-hydrogen substituent. Definitions provided in claim 28 are not internally consistent. Attention is drawn to page 6, line 4 which recites, “- $R^6$  and  $R^7$ , are the same or different from each other...” As elucidated above, the formula corresponding to (IVa) does not show substituent  $R^7$  per se, and the substituent corresponding to that position is hydrogen only.

Dependent claims 29 and 30 are subsumed under the rejection.

An interview was held with Applicant's representative, Jarrod N. Raphael, on November 17, 2008 to resolve these issues, however, a resolution could not be reached.

***Claim Objections***

3. Claim 24 is objected to because of the following informalities: In line 2 of the claim, please replace “comprising” with “of.” Appropriate correction is required.
4. Claim 24 is objected to because of the following informalities: On page 2, line 1, replace “and” with “or.” Appropriate correction is required.
5. Claim 25 is objected to because of the following informalities: Please place the phrase, “X is hydrogen, a halogen, or R;” (line 11) after “-p is 2;” (line 4). Appropriate correction is required.
6. Claim 26 is objected to because of the following informalities: On lines 3, 5, and 9, delete superfluous term, “saturated or unsaturated.” Appropriate corrections are required.
7. Claim 28 is objected to because of the following informalities: On page 5, line 3, replace “and” with “or.” Appropriate correction is required.
8. Claim 28 is objected to because of the following informalities: Please place the phrase “to form a metallocene compound product” (page 8, line 13) after “thereof,” (page 5, line 4). Appropriate correction is required.
9. Claim 28 is objected to because of the following informalities: On page 8, line 31, replace “and” with “or.” Appropriate correction is required.
10. Claim 32 is objected to because of the following informalities: On page 11, line 1, replace “are the same or different from each other, and are” with “is.” Appropriate correction is required.
11. Claim 34 is objected to because of the following informalities: On lines 2, 4, and 8, delete superfluous term, “saturated or unsaturated.” Appropriate corrections are required.

12. Claim 34 is objected to because of the following informalities: On line 7, replace “and R<sup>7</sup> are” with “is.” Appropriate correction is required.
13. Claim 35 is objected to because of the following informalities: On page 13, line 15, replace “and” with “or.” Appropriate correction is required.
14. Claim 37 is objected to because of the following informalities: On line 4 of the claim, please replace “in the presence of” with the word “with.” Appropriate correction is required.
15. Claim 41 is objected to because of the following informalities: On line 3, replace “and” with “or.” Appropriate correction is required.

***Allowable Subject Matter***

16. As indicated in the previous office action dated March 17, 2008, the subject of claims 24-27, 32-35, 37, 39, and 41 is patentably distinct over the closest reference, Nifant'ev *et al.* (WO 01/47939; U.S. 7,112,638). The reference does not teach or make obvious to one having ordinary skill in the art bridged metallocenes containing a cyclopentadithiophene ligand and a benzo[e]indenyl ring containing a C<sub>1</sub>-C<sub>40</sub> hydrocarbon group at the 8-position. Claims would be allowable upon appropriate corrections to overcome claim objections for claims 24-26, 28, 32, 34, 35, 37, and 41; see paragraphs 2-15, *supra*.

***Priority***

17. Acknowledgment is made of applicant's claim for foreign priority based on an application filed with the European Patent Office on December 22, 2003. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b). As indicated in the previous office action dated March 17, 2008, two copies of the same provisional document 60/532,331 were filed on June 22, 2006. A call was made to Applicant's representative, Jarrod N. Raphael, requesting filing of priority document EP 3104913.3. Applicant's representative indicated that a request was made to the European Patent for a copy of this document and that it will be filed with the current application upon receipt.

***Conclusion***

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu S. Jagannathan, can be reached at (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/Rip A. Lee/  
Art Unit 1796

November 17, 2008

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1796